MOBILE PROJECTORS

New TW21U/TX20U TW11U/TX10U

PICTURE BY DLP TEXAS INSTRUMENTS

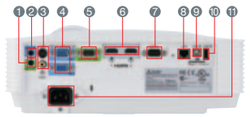
DLP 3D READY

Specifications

Model	TW21U	TX20U	TW11U	TX10U
Display technology	0.65" 1-Chip DMD, 12deg. LVDS, DDP4421	0.55" 1-Chip DMD, 12deg. LVDS, DDP4421	0.65" 1-Chip DMD, 12deg. LVDS, DDP4421	0.55" 1-Chip DMD, 12deg. LVDS, DDP4421
Resolution	1280 × 800 (Total 1,024,000 pixels)	1024 × 768 (Total 786,432 pixels)	1280 × 800 (Total 1,024,000 pixels)	1024 × 768 (Total 786,432 pixels)
Brightness*	3500lm		3000lm	
Contrast ratio	3000:1(on/off)			
Picture size	40"-300"			
Throw ratio	1.5-1.9	1.6-1.9	1.5-1.9	1.6-1.9
Source lamp	Standard Mode: 240W (Shut Off Time: 3000hrs), Low2 Mode: 170W (Shut Off Time: 6000hrs)		Standard Mode : 210W (Shut Off Time : 3000hrs), Low Mode: 160W (Shut Off Time: 6000hrs)	
PC compatibility	640 × 480(Expand) - 1280 × 800(Real) - 1600 × 1200 (Compressed), 1080p (Compressed) Sync on Green available	640 × 480(Expand) - 1024 × 768(Real) - 1600 × 1200 (Compressed), 1080p (Compressed) Sync on Green available	640 × 480(Expand) - 1280 × 800(Real) - 1600 × 1200 (Compressed), 1080p (Compressed) Sync on Green available	640 × 480(Expand) - 1024 × 768(Real) - 1600 × 1200 (Compressed), 1080p (Compressed) Sync on Green available
Video compatibility	NTSC / NTSC 4.43 / PAL (including PAL-M, N) / SECAM / PAL-60 Component Video ; 480i/p(525i/p), 576i/p(625i/p), 720p(750p), 1080i/p(1125i/p 60Hz) 1080i/p(1125i/p 50Hz), 1080p 24Hz		NTSC / NTSC 4.43 / PAL (including PAL-M, N) / SECAM / PAL-60 Component Video ; 480i/p(525i/p), 576i/p(625i/p), 720p(750p), 1080i/p(1125i/p 60Hz) 1080i/p(1125i/p 50Hz), 1080p 24Hz	
Input terminals	RGB ; mini D-sub 15pin × 2 Audio ; Stereo mini jack (ϕ3.5mm) × 1 Video ; RCA × 1 + S-VIDEO × 1 Digital ; HDMI × 2		RGB; mini D-sub 15pin × 2 Audio; stereo mini jack (ø3.5mm) × 1 Video; RCA × 1 + S-VIDEO × 1 Digital; HDM × 1	
Output terminals	RGB ; mini D-sub 15pin × 1 Audio ; Stereo mini jack (ϕ3.5mm) × 1		RGB ; mini D-sub 15pin × 1 Audio ; Stereo mini jack (ϕ3.5mm) × 1	
Communication terminals	SERIAL; mini D-sub 9pin × 1 (RS232C) LAN(RJ-45) ; × 1 (Projector control,LAN Display) USB type-A ; Wireless Display, USB Viewer USB type-B ; USB Display		SERIAL; mini D-sub 9pin × 1 (RS232C) LAN (RJ-45) ; × 1 (Projector control)	
Audio speaker	16W mono		10W mono	
Keystone Correction	Approx.±Max 20 degrees (Vertical only)			
Dimensions (W × H × D)	319 × 103 × 224 mm (not including protrusions)			
Weight	2.8kg / 6.2 lbs			
Power requirements	AC 100-240V, 50/60Hz			
Optional lamp	VLT-TX20LP		VLT-TX10LP	

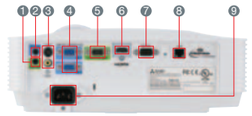
*Compliant with ISO21118-2005 •Varies depended on condition. •All brand names and product names are trademarks, registered trademarks or trade names of their respective holders. •Lamp life specification is an estimate based on verification under proper conditions and is not the duration of the warranty. Lamp will shut-off automatically when usage reaches the specified estimated maximum lamp hours. Service life may vary widely depending on usage and operating environment and conditions, as well as users' adherence to the maintenance and cleaning procedures provided in the user manual. •"HDMI, the HDMI Logo, and High-Definition Multimedia Interface arvae trademarks or registered trademarks of HDMI Licensing LLC in the United States and other countries."

Input and Output Terminals



TW21U / TX20U

❶Audio output
❷Audio input
❸S-Video/Video
❹PC/Component video input
❺Monitor output
❻HDMI
❼Serial RS-232C
❽LAN (RJ-45)
❾USB (type-B)
❿USB (type-A)
⓫Power in(3-pin with earth terminal)

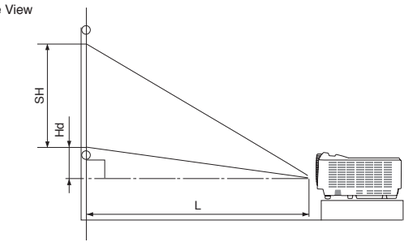


TW11U / TX10U

❶Audio output
❷Audio input
❸S-Video/Video
❹PC/Component video input
❺Monitor output
❻HDMI
❼Serial RS-232C
❽LAN (RJ-45)
❾Power in(3-pin with earth terminal)

Screen Size and Projection Distance

Side View



Screen size chart (TW21U / TW11U)

Size of the projected image						Projection distance:L				Height of projected image(Hd)	
16:10 diagonal size		Width: SW		Height: SH		Shortest (Wide)		Longest (Tele)			
inch	cm	inch	cm	inch	cm	inch	m	inch	m	inch	cm
40	102	34	86	21	54	50	1.3	62	1.6	2.6	7
60	152	51	129	32	81	76	1.9	94	2.4	4.0	10
80	203	68	172	42	108	101	2.6	126	3.2	5.3	13
100	254	85	215	53	135	127	3.2	157	4.0	6.6	17
120	305	102	258	64	162	153	3.9	189	4.8	7.9	20
150	381	127	323	79	202	191	4.8	236	6.0	9.9	25
200	508	170	431	106	269	255	6.5	315	8.0	13.2	34
250	635	212	538	132	337	319	8.1	394	10.0	16.6	42
300	762	254	646	159	404	383	9.7	-	-	19.9	50

Screen size chart (TX20U / TX10U)

Screen size						Projection distance: L				Height of projected image(Hd)	
4:3 diagonal size		Width: SW		Height: SH		Shortest (Wide)		Longest (Tele)			
inch	cm	inch	cm	inch	cm	inch	m	inch	m	inch	cm
40	102	32	81	24	61	51	1.3	62	1.6	3.6	9
60	152	48	122	36	91	77	2.0	93	2.4	5.4	14
80	203	64	163	48	122	103	2.6	125	3.2	7.2	18
100	254	80	203	60	152	129	3.3	156	4.0	9.0	23
120	305	96	244	72	183	156	4.0	187	4.8	10.8	27
150	381	120	305	90	229	195	4.9	234	6.0	13.5	34
200	508	160	406	120	305	260	6.6	313	7.9	18.0	46
250	635	200	508	150	381	325	8.3	391	9.9	22.5	57
300	762	240	610	180	457	390	9.9	-	-	27.0	69

for a greener tomorrow

Eco Changes is the Mitsubishi Electric Group's environmental statement, and expresses the Group's stance on environmental management. Through a wide range of businesses, we are helping contribute to the realization of a sustainable society.

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To find out more about TW21U/TX20U/TW11U/TX10U and other projectors, visit us at

www.MitsubishiElectric.com/projectors

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MITSUBISHI ELECTRIC
Changes for the Better

for a greener tomorrow eco Changes

DATA PROJECTOR

Mobile projecting takes on a new look

New TW21U WIDE WXGA / TX20U
TW11U WIDE WXGA / TX10U

A selection of models designed to meet diversified educational needs

Mitsubishi Electric projectors keep getting better and better. Now, selecting the best solution is even easier thanks to a line-up of full-scale mobile projectors offered as two convenient model lines: the TW21U and TX20U, multifunctional models equipped with diverse features for educational needs including tablet compatibility and thin client functions; and the TW11U and TX10U, simple models prioritizing ease of use yet equipped with all the essential features. The choice is yours. Select a model that optimally matches your needs and let us support you in achieving enhanced classroom communications.

Outstanding Features

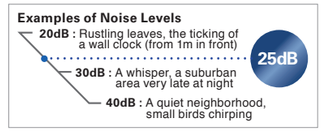
		TW21U / TX20U	TW11U / TX10U
High Image Quality	**High Brightness**	3500lm	3000lm
	High Contrast	3000:1	3000:1
Ecology Friendly	**Long Life Lamp**	6000hrs (in Low2 Mode) 3000hrs(in Standard Mode)	6000hrs (in Low Mode) 3000hrs(in Standard Mode)
	Efficient Mode Selection	✓	✓
	Unpainted Cabinet(for recycle)	✓	✓
	Powerful Audio Speaker	16W mono	10W mono
Intallation Flexibility & User Friendly Presentation	**Auto Keystone Correction**	✓	✓
	Ultra Quiet Fan Noise	25dB (in Low2 mode)	25dB (in Low mode)
	Top-loading Lamp	✓	✓
	OSD Menu Multilanguage	24 languages	24 languages
	Digital Zoom	✓	✓
	HDMI Input	2	1
	VGA Input	2	2
	RJ-45 Port	1	1
	3D Ready **Support all formats (Frame packing/Side by side/ Top and bottom/Frame sequesntial)**	✓	✓
	USB Viewer(PtG file /JPEG Viewer)	✓	–
Network Connectivity	**Crestron Room View™**	✓	✓
	AMX Device Discovery	✓	✓
	PJLink®	✓	✓
	WiFi-Doc / SidePad Function	✓	–
	USB display / LAN display	✓	–
	Thin Client Projector	✓	–

User-friendly / Eco-conscious

Ultra Quiet Operation – 25dB*

Fan noise during projector operation can be distracting during a presentation or videoconference. The TW21U/TX20U & TW11U/TX10U operate at a significantly low noise level of only 25dB (i.e., in low lamp mode). As a result, presentations and conferences can be enjoyed without distracting projector noise in the background.

* TW11U/TX10U : Low mode , TW21U/TX20U : Low2 mode
  TW11U/TX10U : 32dB , TW21U/TX20U : 35dB in Standard mode

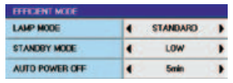

Examples of Noise Levels
20dB : Rustling leaves, the ticking of a wall clock (from 1m in front)
25dB
30dB : A whisper, a suburban area very late at night
40dB : A quiet neighborhood, small birds chirping

Energy-efficient Mode Selection

Models are equipped with selection functions for the lamp, power source and standby mode, allowing each to be set according to the usage environment.

Lamp Mode: Standard / Low
Standby Mode: Standard / LAN / Low
Auto Power Off: 5min / 10min / 15min / 30min / 60min / 4hour / 8hour

Modes can be set and changes made to them by direct input using via the remote controller.



Each mode can be set individually

Digital Zoom

The Digital Zoom function utilizes an electrical image-correction process to reduce the image size up to 30% for TW11U and TW21U and up to 25% for TX10U and TX20U (maximum reduction to 70% of original size for TW11U and TW21U and to 75% for TX10U and TX20U). When zooming out, the focal point at the center of the image remains the same while the overall image dimensions are reduced. In addition, the position of the reduced image can be moved up/down and left/right within certain limits.

TW11U/TW21U: Reduction rate: 100-70%; Zoom ratio: 1-1.4
TX10U/TX20U : Reduction rate: 100-75%; Zoom ratio: 1-1.3

Extendibility

WiFi-Doc

WiFi-Doc is application software that allows data stored on a tablet or smartphone (txt/pdf/ppt/xls/doc/jpeg files) to be sent directly to a projector and shown. Useful images can be quickly accessed and shared while simultaneously giving presenters the freedom to interact more closely with the audience.

* Please download a freeware WiFi-Doc application (both freeware and payware are available).
* Mirroring of the tablet screen is not supported.
* On tablets, it is not possible to edit files or send movies.
* Movies and animations are not supported.
* Communication fees incurred while downloading applications are to be paid for by the customer.

SidePad Function

Used in combination with LAN Display System, the images being projected can be displayed on tablets or smartphones, and the computer can be operated from a tablet. Teachers can remotely access their computer when carrying a tablet with them in the classroom, thereby facilitating even closer communication with students during lessons.

* This feature can be used after downloading the MirrorOp Receiver application software (freeware). The LAN Display System is included with the main unit.
* MirrorOp, MirrorOp Receiver, and WiFi-Doc are registered trademarks, trademarks, or trade names of AWIND Inc.

Thin Client Projector

When connected to a LAN, users can log-in to remote computers directly from the projector, retrieve stored images and play them back. Through the introduction of the LAN Display Function and Remote Log-in Function, use as a thin client is possible. As all operations can be performed through the LAN, it is easy to start up another projector at the time of changing classrooms. Faculty members no longer need to return to the staff room to change the log-in on the remote computer. The TW21U/TX20U itself also functions as a terminal adaptor, enabling connection to a cloud through a computer or server. Applications and data can be used in the cloud infrastructure environment, helping to reduce the amount invested in school equipment. A projector that is truly easy to use, the thin client compatibility of the TW21U/TX20U provides enhanced convenience that makes giving presentations much easier.